FORM PTO-1390 (Modified) (REV. 07-2004) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER	
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U.S. APPLICATION NO. (If known, see 37 CFR 1.5)	10/506604
INTERNATIONAL APPLICATION NO. PCT/EP03/01114	INTERNATIONAL FILING DATE 5 February 2003
PRIORITY DATE CLAIMED 12 March 2002	

TITLE OF INVENTION
INJECTION MOLDINGS WITH SELF-CLEANING PROPERTIES AND A PROCESS FOR PRODUCING THESE INJECTION MOLDINGS

APPLICANT(S) FOR DO/EO/US
NUN Edwin et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
   a. ☐ is attached hereto (required only if not communicated by the International Bureau).
   b. ☒ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☒ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 23 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A power of attorney and/or change of address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13*ter*.2 and 37 CFR 1.821 - 1.825.
20. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
22. ☐ Express Mail Label No.
23. ☒ Other items or information:

PCT/IB/304/Notice of Priority/PCT/IB/308
Application Data Sheet/Drawings (1 sheet)
Cited References (5)/PTO-1449

INJECTION MOLDED BODY HAVING SELF-CLEANING PROPERTIES, AND METHOD FOR PRODUCING INJECTION MOLDED BODIES OF THIS TYPE

Publication number: WO03076169 (A2)
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Inventor(s): NUN EDWIN [DE]; DAMBACHER GERNOT [DE]; SCHLEICH BERNHARD [DE]; OLES MARKUS [DE]
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Classification:
- international: ***B29C45/26; B08B17/06; B29C45/00; B29C45/14; B29C70/64;*** **B29C45/26; B08B17/00; B29C45/00; B29C45/14; B29C70/00;** (IPC1-7): B29C70/64; B08B17/06; B29C45/14
- European: B08B17/06; B29C45/14Q; B29C70/64
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Priority number(s): DE20021010673 20020312

Also published as:
WO03076169 (A3)
US2005167877 (A1)
JP2005519788 (T)
EP1483104 (A2)
EP1483104 (B1)
more >>

Cited documents:
WO9604123 (A1)
EP0933388 (A2)
EP1063071 (A2)
US5997675 (A)
FR2572023 (A1)
more >>

Abstract of **WO 03076169 (A2)**

The invention relates to injection molded bodies with surfaces having self-cleaning properties, and to a simple method for producing these self-cleaning surfaces. The inventive method is simple by virtue of the fact that it can involve the use of existing tools. Injection molded parts are generally produced by using injection molds into which the material is injected. The inventive method uses this technique by applying microparticles to the injection mold before the actual injection molding whereby, during injection molding, these particles are transferred tot he injection molded part while being pressed into the surface thereof. The inventive method makes it possible to obtain self-cleaning surfaces comprising particles with a fissured structure without having to apply an additional embossed layer or foreign material supporting layer to the shaped bodies.; Inventive injection molded bodies can be three-dimensional articles of almost any type.